How does NASA study land?

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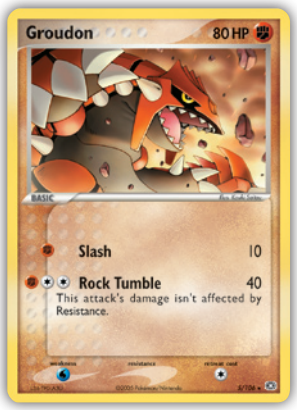

LEARN the real **science** behind FUN!
Pokémon TRADING CARD GAME

PURPOSE

To observe causes of erosion

BACKGROUND

Erosion is the movement of rocks and soil. A major cause of erosion is moving water. When a location receives more water than it can absorb, water runs toward the lowest point. The faster the water runs the more materials it takes with it. Softer materials are the first to be carried away. Sometimes major changes due to erosion can be seen from space.

Materials

- Use the pencil to make a hole in the side of the foam cup near the bottom.
- Cut the straw in half and put one end in the hole you made in the cup.
- Seal the hole with clay.
- Mix equal parts of clay, sand, and gravel with two parts soil to create a soil mix.

For each class:

pencil
foam cup
plastic straw
clay
cookie sheet
potting soil
gravel *(type used for fish tanks)*
sand
clay
plastic 2-liter container
small rocks

PROCEDURE

1. This lesson should be completed outside or at a water station.
2. Cover the cookie sheet with a layer of soil mix.
3. Raise one end of the cookie sheet.
4. Place the cup over the raised end.
5. Using the 2-liter container, slowly fill the cup with water.
6. Observe which materials in the soil moved to the bottom of the pan.
7. Spread the soil evenly across the cookie sheet.
8. Raise the end higher, repeat the experiment, and observe erosion.
9. Spread the soil evenly across the cookie sheet.
10. Push a rock into the soil so that it is under the cup.
11. Pour water into the cup. Whenever the water cuts a path into the dirt, place another rock into the soil. Continue to change the direction of the water stream until the end of the pan is reached. This experiment shows why streams and riverbeds change directions.

CONCLUSION

1. How did the different materials affect erosion?
2. What might you do to prevent erosion? Experiment with your ideas.

EXTENSIONS

1. This model demonstrates water erosion. Create another model to demonstrate the effects of wind erosion. Compare the two models.
2. Bring in photographs and satellite pictures of eroded areas.